

AUDIENCE: General Public in Montana.

OBJECTIVE: Why wind energy and transmission development is good for Montana's economy.

## **Economic Benefit of Montana Energy Development**

One of Montana's most exciting economic growth potentials is energy development. Our world class energy resources -- wind, oil and gas, biofuels, biomass, significant amounts of coal and more --are second to none in the United States and provide us with the opportunity to help the nation to wean itself from foreign oil while creating economic growth opportunities here in Montana. Our addiction to foreign oil is of grave concern to all Americans and Montana is positioned to be a leader in breaking that addiction. We can provide a good share of the energy resources America needs in a manner that respects and protects the wild places that make Montana so special.

Because of our existing and potential energy development opportunities, Montana can and will play a major role in reducing our nation's addiction to foreign oil. When done properly, energy development can create the high quality, good-paying jobs essential to enhance and maintain our strong Montana economy. The locations of much of the energy resources will stimulate economic growth in areas of Montana that has long suffered economic hardship, particularly in the eastern portion of the state.

Here we highlight of just a few of these energy projects, focusing on wind and transmission. These projects, with their combined estimated capital expenditure of nearly \$6 billion, could result in over 20,000 jobs and \$2 billion in economic impacts. In addition, nearly \$400,000 of annual state and local taxes would add a significant boost to local counties and schools.

This document contains information from a variety of sources that highlights specific Montana energy and transmission projects, providing indicators of economic benefits that the state of Montana has and will continue to see as we develop these resources. Information on economic benefits and tax information are provided by the Montana Department of Labor and Industry and the Montana Department of Revenue. Visit our website [www.commerce.mt.gov/energy](http://www.commerce.mt.gov/energy) to review referenced information.

## ***Wind Power Generation***

More new electrical generation capacity has been added in Montana in the last 5 years than the previous 20 years combined, including wind projects in Baker, Great Falls, Judith Gap, and Shelby. These wind farms total 376 MW of clean, Montana energy with much more on the horizon. Studies on wind potential, including a recent study by Harvard University, consistently place Montana as one of the top states in the nation for overall wind energy development potential. Wind developers from across the nation are taking notice. Currently, over 50 projects are in various stages of development which could total over 5,000 MW of Montana-made energy.

### **GLACIER WIND FARM**

Glacier Wind Farm, a project of NaturEner USA, is Montana's largest wind project with a total of 210 megawatts and is located near Shelby in both Toole and Glacier Counties. Construction finalized in the fall of 2009 and resulted in over 1,000 direct and indirect jobs. With a capital investment of \$500 million, we expect to see an on-going financial benefit of \$8.5 million throughout the life of the project. The tax revenue generated from this project is expected to be about \$7.4 million and would include nearly \$6 million in county and local school taxes per year.

### **RIM ROCK WIND FARM**

Rim Rock, a project of NaturEner USA, brings an investment of \$800 million and includes 206 turbines - or 309 megawatts. This will be one of the largest wind projects in the northwest United States. Construction of this project will coincide with that of the Montana Alberta Tie transmission line and could result in as many as 1600 direct and indirect jobs and an on-going financial output of \$12.3 million.

### ***Transmission Projects***

However significant wind energy production may be, few of these projects will become a reality without new and upgraded transmission systems. Transmission is a key component to wind energy development because in order to realize our full energy potential, we need to be able to move power to population centers in the Pacific Northwest and the Desert Southwest where it is in high demand. Throughout the western United States, major transmission projects are being proposed for this very purpose. In Montana, we currently have six major transmission projects under development. These projects could total up to 12,000 MW of new electricity capacity for

planned and future clean energy projects that could provide up to a total of \$27 billion in investments to Montana.

### **MONTANA ALBERTA TIE, Ltd (MATL)**

MATL, a project of Tonbridge Power, will run from Great Falls to Lethbridge, Alberta and will carry 600 megawatts of Montana wind energy. Nearly two-thirds of the project falls inside the United States border and will employ hundreds of Montana workers.

The economic benefit of MATL and subsequent wind development is significant. The tax revenue collected from MATL alone would bring an annual \$730,000 to the state and at least \$100,000 to each county through which the line runs. An expected 55 MATL-related jobs will result in \$4.6 million in wages while construction of the associated wind projects will require 1400 short term jobs with an estimated \$53 million in wages.

Once fully operational, the wind projects will continue to provide lasting economic benefits to Montana. We can count on \$6 million in annual wages from permanent jobs and \$8 million in annual county and state revenue. Additionally, land owners with wind towers on their land will receive combined annual lease payments of \$2.7 million. All totaled, the economic benefit from wind energy development associated with MATL is \$16 million per year. Assuming a wind project life span of 20 years, we stand to see an impact of \$3.2 billion in Glacier, Toole, and surround counties alone.

### **MOUNTAIN STATES TRANSMISSION INTERTIE (MSTI)**

NorthWestern Energy (NWE) proposes to construct, operate and maintain the Mountain States Transmission Intertie (MSTI) 500 kilovolt (kV) transmission line to address the requests for transmission service from customers and to relieve constraints on the high-voltage transmission system in the region. The transmission line would begin at the new Townsend Substation, which would be constructed in southwestern Montana about five miles south of the town of Townsend. With a price tag of \$1 billion, an estimated 1,000 related jobs could yield \$230 million in labor income during construction. Expected tax revenue could yield nearly \$30 million with \$23 million of that directly to counties and local schools.

### **CHINOOK**

The Chinook project is a 1,000 mile, 500 kV HVDC transmission line that will originate near Harlowton, traverse Idaho, and terminate south of Las Vegas in the Eldorado

Valley. From this point, other transmission systems will be able to transmit the energy to California, southern Arizona and other southwestern markets. The Chinook project is estimated to cost approximately \$2 billion, and is scheduled to commence operations in early 2015 and could result in nearly 2,500 related jobs with \$460 million in labor income during construction. Of the \$59 million of potential tax revenues, an estimated \$47 million would benefit counties and local schools in which the project is built.

### **COLSTRIP 500 kV Upgrade**

NorthWestern, other Colstrip Transmission System owners and the Bonneville Power Administration have completed a technical study to increase the existing 500 kV transmission system by up to 700 MW. This system extends from Colstrip in eastern Montana to the Mid C area of the Columbia River on the border between Washington and Oregon. The Montana 500 kV transmission system is used to move the existing Colstrip generation to the Northwest. Approximately 70% of this generation is exported to serve loads outside of Montana. An estimated investment of \$207 million for this project could result in nearly 1,000 related jobs paying an estimated total of \$47.6 in labor income. Annual tax payments totaling an estimated \$12 million would include \$9.6 million for the affected local schools and counties.

### **NORTHWESTERN ENERGY COLLECTOR SYSTEM**

The proposed Collector project will be five generator lead lines (i.e. collector lines) that originate in the high wind areas of Montana and move renewable wind energy south to a new 500 kV substation at Townsend, Montana. This project, along with the MSTI project, would provide a key pathway for potential Montana wind generation to be directed to demand centers in the Pacific Northwest and Desert Southwest. With an estimated investment of nearly \$1 billion, approximately 2,000 related jobs totaling \$31 million in wages could be created. Estimated annual tax payments of \$11 million would include \$9 million for counties and local schools.

### **WIND SPIRIT PROJECT – GRASSLANDS RENEWABLE ENERGY**

The Wind Spirit Project is designed to enable wind energy development in Montana and surrounding states. Wind Spirit will integrate up to 3000 MW of wind energy by constructing smaller collector transmission lines throughout the region. With its Montana projects alone carrying an expected price tag nearing \$1.5 billion, Grasslands could create over 4,000 related jobs and result in over \$300 million in economic benefit.

